Coastal and Ocean Climate Applications (COCA)
COCA & RISA Coastal Climate Extension Pilot Project
FY 18 Information Sheet

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Climate and Societal Interactions Overview

The mission of the NOAA Climate and Societal Interactions (CSI) research portfolio is to inform improvements in planning and preparedness in diverse socio-economic regions and sectors throughout the U.S. and abroad via the integration of knowledge and information about extreme weather and climate. Our research advances the nation's understanding of climate-related risks and vulnerabilities across sectors and regions - within and beyond our borders - and the development of tools to foster more informed decision making. These efforts support NOAA's vision to create and sustain enhanced resilience in ecosystems, communities, and economies. The overall objectives of the CSI portfolio are the following:

1. Support innovative, applicable, and transferable approaches for decision making, especially for risk characterization in the context of a variable and changing climate;
2. Establishment of a network of regionally scoped, long-term efforts to inform climate risk management and decision making; and
3. Promotion of the transfer of climate knowledge, tools, products, and services within NOAA, across the federal government, nationally, and internationally.

These objectives are pursued through four complementary, interdisciplinary research programs: the Regional Integrated Sciences and Assessment (RISA) Program; the International Research and Applications Project (IRAP); the Sectoral Applications Research Program (SARP); and the Coastal and Ocean Climate Applications program (COCA).

RISA– supports research teams that conduct innovative, interdisciplinary, user-inspired, and regionally relevant research that informs resource management, planning, and public policy.

IRAP– supports activities to link science and assessments to practical risk management challenges in regions where weather and climate affect U.S. interests at home and abroad.

COCA– supports interdisciplinary applications research on the impacts of climate variability and change on coastal communities and coastal and marine ecosystems to inform decision making.

SARP– addresses the needs of a specific stakeholder or set of stakeholders within key socioeconomic sectors (e.g., water resources, agriculture, health, etc.) grappling with pressing climate-related issues.

CSI is an active partner in NOAA's efforts to enhance and support services. This partnership brings together NOAA Regional Climate Services Directors (RCSDs), other NOAA service line offices, and close external partners such as RISA teams, Regional Climate Centers, State Climatologists, Sea Grant and other U.S. Government agencies to help make weather and climate information and products relevant, accessible and actionable to people across the U.S.

CSI activities address the societal challenges identified in NOAA's Next-Generation Strategic Plan (NGSP): i) climate impacts on water resources; ii) coasts and climate resilience; iii) sustainability of marine ecosystems; and iv) changes in the extremes of weather and climate. CSI programs support NOAA's vision to create and sustain enhanced resilience in ecosystems, communities, and economies, as outlined in the NGSP.

Coastal and Ocean Climate Applications (COCA)

Overview

To support NOAA's vision of resilient ecosystems, communities, and economies, the Coastal and Ocean Climate Applications (COCA) program supports interdisciplinary research where scientists work with coastal decision-makers, resource managers, and stakeholders to address weather- and climate- related challenges. Outcomes of COCA projects inform the response and coping capacity of decision making and management communities to climate variability and change. In addition, projects must have a clear plan for dissemination of the findings to relevant audiences. Supporting resilient coastal communities is a long-term goal for NOAA as identified in the NOAA Next Generation Strategic Plan[1] and one of the societal challenges identified in the the Climate Program Office Strategic Plan[2].

In the United States, over half of the national gross domestic product comes from the coast and more than 50% of the US population lives in coastal watershed counties.[3] [4] Human

[1] NOAA Next Generation Strategic Plan: http://www.performance.noaa.gov/wp-content/uploads/NOAA_NGSP.pdf
[2] Climate Program Office Strategic Plan: http://cpo.noaa.gov/sites/cpo/News/2014/CPO%20Strategic%20Plan.pdf
[3] U.S. Census Bureau. 2010: Population of U.S. Cities. http://www.census.gov.

pressures, such as coastal development, pollution, and habitat destruction, are impacting the health and sustainability of coastal built and natural systems. As human pressures on the coast continue to increase, the coastal built and natural environment is expected to experience, and in some cases is already experiencing, impacts from extreme weather and climate related challenges (e.g. drought, flooding, sea level rise, storms, etc.).[5] [6] To address these challenges, communities along the coast from major urban centers to smaller rural areas are seeking assistance to understand their vulnerabilities, risks and impacts to climate variability and change. Coastal decision-makers are particularly interested in understanding mechanisms to address both climatic and non-climatic stressors on their communities and surrounding ecosystems.

As scientists continue to make advances in understanding the connections between weather/climate and sea-level rise, storm surges, flooding, salt-water intrusion, etc., there is increasing need to ensure collaboration between scientists and coastal decision makers and the communication of research results to the broader coastal decision making community. Coastal extension specialists are one method of achieving this valued connection between the scientific and coastal decision making communities.

FY18 - COCA & RISA Coastal Climate Extension Pilot Project

To address this, the COCA and RISA programs are collaborating on a two-year pilot project to support and expand coastal climate extension within the RISA network. For FY18, the COCA program is soliciting proposals for coastal climate extension specialists in up to two RISA coastal regions (Mid-Atlantic and South Central).

It is envisioned that the Coastal Climate Extension Specialist(s) will be integrated within a RISA team(s) and will be responsible for supporting efforts to strengthen the coastal research, adaptation, and extension capacity. The Specialist's duties and responsibilities should include a minimum of 50% time devoted to regional coastal weather- and climate- related outreach activities. The goal of the Coastal Climate Extension Specialist(s) position is to address at least two of the following:

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[4] Global Climate Change Impacts in the United States. Thomas R. Karl, Jerry M. Melillo, and Thomas C. Peterson, (eds.). Cambridge University Press, 2009.

[5] The National Coastal Population Report: Populations Trends from 1970 to 2020, http://oceanservice.noaa.gov/facts/coastal-population-report.pdf.

[6] Global Climate Change Impacts in the United States. Thomas R. Karl, Jerry M. Melillo, and Thomas C. Peterson, (eds.). Cambridge University Press, 2009.

1. Build capacity to address the coastal risk management challenges of existing RISA partners and stakeholders
2. Expand RISA team(s) capacity to work with new stakeholders on key regionally relevant coastal issues (e.g. public health, critical infrastructure, urban development)
3. Synthesize and communicate research findings, tools, and resources to RISA coastal stakeholders and decision-makers
4. Foster stronger connections across COCA-sponsored research and RISA networks
5. Support the communication of lessons learned, tools, and methodologies, across the coastal RISA teams and COCA researchers.
6. Develop measures and methods to evaluate the effectiveness of coastal climate extension within the RISA network.

All proposals should promote collaborations with and/or leverage relevant institutions in the area of study – e.g. NOAA entities (e.g. Sea Grant, National Ocean Service, National Weather Service, NOAA Water Initiative, etc.); non-governmental organizations; academic institutions; state, local, and tribal governments; private sector organizations; and other federal agencies (e.g. Department of Housing and Urban Development, Department of the Interior, etc.).

COCA is seeking proposals for coastal climate extension specialist(s) in two RISA regions, Mid-Atlantic and South Central (http://cpo.noaa.gov/RISA/RISA-Teams). The Mid-Atlantic RISA region includes the following coastal states: Virginia, Delaware, Maryland, New Jersey, Pennsylvania, New York, and the District of Columbia. The South Central RISA region includes the following coastal states: Texas and Louisiana. Proposals that include transboundary work with Mississippi and Alabama will be considered. It is intended that the specialist will be integrated within the RISA team as a collaborator in the two regions identified. All proposals should include language describing the plan to collaborate with the RISA team(s). Letters of support from the RISA team are encouraged.

This is a one time, two-year pilot project. COCA intends to fund 1 - 2 specialists in up to two of the identified RISA Regions (Mid-Atlantic and South Central). COCA is supporting projects up to $200,000 a year for up to 2-years. Funding can be expected to continue for two years, depending on appropriation levels. The number of projects funded and funding amount of all projects are subject to the availability of funding.